

## CLAIMS

What is claimed is:

1. / A method of forming retroreflective sheeting comprising:
  - a) forming a mold by:
    - 5 (i) forming three sets of parallel grooves in a body of mold material; the grooves intersecting at an angle to form a plurality of prisms each prism having a base and three intersecting lateral faces which meet at an apex;
    - (ii) removing a portion of at least one face of a prism to form a shorter size prism adjacent a taller size prism and a cut surface therebetween;
  - b) texturing some, but not all, of the surfaces of the faces and cut surface;
  - c) forming a replica of the mold;
  - d) forming the sheeting in the replica; and
  - 15 e) removing the sheeting from the mold.
2. The method of Claim 1 wherein the prisms are formed in pairs and wherein the prisms have a tilted optical axis.
3. The method of Claim 1 wherein the step of removing the portion of at least one face of a prism comprises fly-cutting.
- 20 4. The method of Claim 1 wherein the shorter size prism is formed to have a skewed optical axis.
5. Retroreflective sheeting formed by the method of Claim 1.
6. The method of Claim 1 further including the step of metallizing the sheeting on a prism face side.
- 25 7. / A method of forming retroreflective sheeting comprising:
  - a) forming a mold by forming three sets of parallel grooves in a body of mold material; the grooves intersecting at an angle to form a plurality of

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- prisms, each prism having a base and three intersecting lateral faces which meet at an apex;
- 5      b)      texturing at least a portion, but not all portions, of the surfaces of the faces;
- c)      forming a replica of the mold;
- d)      forming the sheeting in the replica; and
- e)      removing the sheeting from the replica.
8.      The method of Claim 7 wherein the step of texturing the surfaces of the faces comprises:
- 10      a)      coating the faces with a layer of photoresist;
- b)      exposing the photoresist to a substantially random speckle pattern;
- c)      developing the exposed photoresist and selectively removing the developed photoresist; and
- d)      etching the mold in the areas of the speckled pattern.
- 15      9.      The method of Claim 8 wherein the random speckled pattern is formed by illuminating a diffusion screen with a plane wave of coherent light.
10.      The method of Claim 8 wherein the pattern is asymmetric.
11.      The method of Claim 9 wherein the coherent light is scanned across the
- 20      diffusion screen.
12.      The method of Claim 11 wherein the light is scanned at a speed  $\sigma$  along consecutive lines separated by a distance  $w_0$ , wherein  $\sigma_{\max}$  is about 80 mm/s and  $w_0$  is about 0.5 mm.
13.      A method of forming a mold for use in forming retroreflective sheeting
- 25      comprising:
- a)      forming the mold by forming three sets of parallel grooves in a body of mold material, the grooves intersecting at an angle to form a plurality of prisms, each prism having a base and three intersecting lateral fences which meet at an apex;

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- b) coating at least a portion of the lateral faces with photoresist;
  - c) exposing the photoresist to a substantially random speckle pattern;
  - d) developing the exposed photoresist and selectively removing the developed photoresist;
  - 5 e) etching the mold in the areas of the speckle pattern; and
  - f) removing a portion of at least one face of a prism to form a shorter prism adjacent a taller size prism and a cut surface therebetween.
14. The method of Claim 13 further comprising forming a replica of the mold.
15. The method of Claim 14 further comprising forming the sheeting in the replica.
- 10 16. The method of Claim 15 further comprising removing the sheeting from the replica.

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